Typical L-Frame Circuit Breaker



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L-Frame (125–600 Amperes)

Product Description

- All Eaton L-Frame circuit breakers are HACR rated
- L-Frame circuit breakers are available as individual components (frame, trip unit, terminals), or factory assembled complete breakers
- L-Frame circuit breakers with non-interchangeable trip units are suitable for reverse feed use

Standards and Certifications

• CE marked

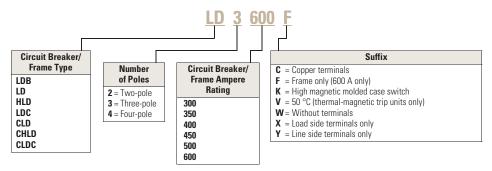


Catalog Number Selection

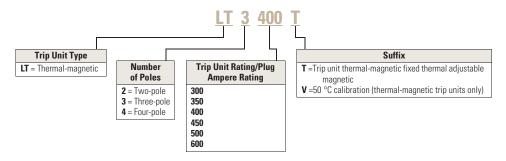
This information is presented only as an aid to understanding catalog numbers. It is not to be used to build catalog numbers for circuit breakers or trip units.

LD-Frame with Thermal-Magnetic Trip Unit Technology

Thermal-Magnetic Breakers and Frame ®



Thermal-Magnetic Trip Unit ®

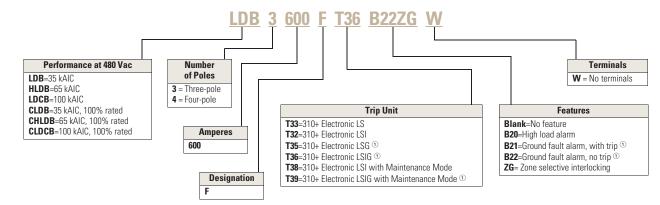


Note

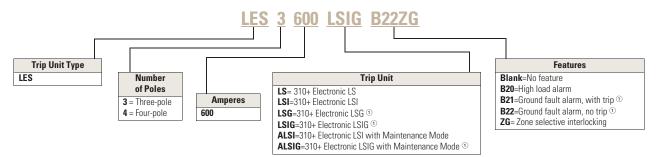
① Frames are the same for thermal-magnetic or 310+ electronic trip units, e.g., LD3600F, HLD3600F, etc.

LD-Frame with 310+ Electronic Trip Unit Technology

310+ Circuit Breakers

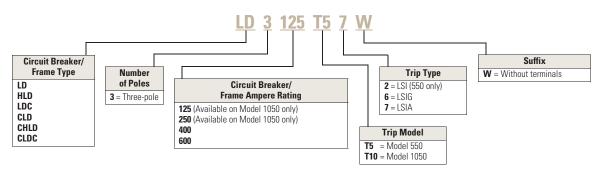


310+ Electronic Trip Units ②



LD-Frame with OPTIM Electronic Trip Unit Technology

OPTIM Circuit Breakers



- $^{\scriptsize \textcircled{\tiny 1}}$ Not available in four-pole configurations.
- $^{\circ}$ Frames are the same for thermal-magnetic or 310+ electronic trip units, e.g., **LD3600F**, **HLD3600F**, etc.

Product Selection

Types LD, HLD and LDC Thermal-Magnetic Circuit Breakers with Interchangeable Trip Units

Maximum Continuous Ampere Rating at 40 °C ①	Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac Factory Assembled Circuit Consisting of Frame, Trip Unit and Terminals Catalog Number	High Interrupting Capacity 600 Vac Rated 65 kAIC at 480 Vac Factory Assembled Circuit Consisting of Frame, Trip Unit and Terminals Catalog Number	Ultra High Interrupting Capacity Current Limiting 600 Vac Rated 100 kAIC at 480 Vac Factory Assembled Circuit Consisting of Frame, Trip Unit and Terminals Catalog Number	Thermal-Magnetic Trip Unit Only For Use with Standard or High or Ultra High Interrupting Frames Catalog Number	Standard Terminals Only See Page V4-T2-307 for Optional Terminals Catalog Number
Two-Pole					
300	LD2300	HLD2300	LDC2300	LT2300T	TA602LD ②
350	LD2350	HLD2350	LDC2350	LT2350T	TA602LD ②
400	LD2400	HLD2400	LDC2400	LT2400T	TA602LD 2
450	LD2450	HLD2450	LDC2450	LT2450T	TA602LD ②
500	LD2500	HLD2500	LDC2500	LT2500T	TA602LD ②
600	LD2600	HLD2600	LDC2600	LT2600T	2TA603LDK ③
Three-Pole					
300	LD3300	HLD3300	LDC3300	LT3300T	TA602LD ②
350	LD3350	HLD3350	LDC3350	LT3350T	TA602LD ②
400	LD3400	HLD3400	LDC3400	LT3400T	TA602LD ②
450	LD3450	HLD3450	LDC3450	LT3450T	TA602LD ②
500	LD3500	HLD3500	LDC3500	LT3500T	TA602LD 2
600	LD3600	HLD3600	LDC3600	LT3600T	3TA603LDK ³
Four-Pole 4					
300	LD4300	HLD4300	LDC4300	LT4300T	TA602LD ②
350	LD4350	HLD4350	LDC4350	LT4350T	TA602LD 2
400	LD4400	HLD4400	LDC4400	LT4400T	TA602LD ②
450	LD4450	HLD4450	LDC4450	LT4450T	TA602LD 2
500	LD4500	HLD4500	LDC4500	LT4500T	TA602LD 2
600	LD4600	HLD4600	LDC4600	LT4600T	4TA603LDK [®]

Types LD, HLD and LDC Thermal-Magnetic Circuit Breakers—Frame Only

LD4600F	HLD4600F	LDC4600F
Four-Pole		
LD3600F	HLD3600F	LDC3600F
Three-Pole		
LD2600F	HLD2600F	LDC2600F
Two-Pole		
Catalog Number	Catalog Number	Catalog Number
Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac	High Interrupting Capacity 600 Vac Rated 65 kAIC at 480 Vac	Ultra High Interrupting Capacity Current Limiting 600 Vac Rated 100 kAIC at 480 Vac

- $^{\scriptsize \textcircled{\tiny 1}}$ Magnetic trip range 5–10 times continuous ampere rating.
- ② Individually packed.
- ③ Terminal kits contain one terminal for each pole and one terminal cover.
- Neutral is in right pole.

Types LD, HLD and LDC Electronic Circuit Breakers with Interchangeable Trip Units

Order as individual components: breaker frame, trip unit and terminals. See 310+ adjustability specifications on Page V4-T2-286.

Types LD, HLD and LDC Electronic Circuit Breakers with Interchangeable 310+ Trip Units

	Circuit Breaker Frame Only			Digitrip RMS 310+ Trip Unit Only ①					
Maximum Continuous Ampere Ampere at 40 °C	Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac Catalog Numb	High Interrupting Capacity 600 Vac Rated 65 kAIC at 480 Vac	Ultra High Interrupting Capacity Current Limiting 600 Vac Rated 100 kAIC at 480 Vac	Standard LS Adjustable Short Time Pickup with I ² t Short Delay Ramp Catalog Numbe	Optional LSI Independently Adjustable Short Time Pickup and Delay	LSG Adjustable Short Time Pickup with I ² t Short Delay and Ground Fault Protection	LSIG Independently Adjustable Short Time Pickup and Ground Fault Protection	Neutral CT for LSG and LSIG ②③ Catalog Number	Terminal Information
Three-Pole	outured 11amp			outured italian				outureg rumber	
Tillee-Fole									
600	LD3600F	HLD3600F	LDC3600F	LES3600LS	LES3600LSI	LES3600LSG	LES3600LSIG	LGFCT600	See Page V4-T2-284
Four-Pole 4									
600	LD4600F	HLD4600F	LDC4600F	LES4600LS	LES4600LSI	_	_	_	See Page V4-T2-284

Types LDB, HLDB and LDCB Electronic Circuit Breakers with Non-Interchangeable 310+ Electronic Trip Units Suitable for Reverse Feed See 310+ adjustability specifications on Page V4-T2-286.

Circuit Breaker Frame Including Digitrip RMS 310+ Electronic Trip Unit Less Terminals Types LDB, HLDB and LDCB with Digitrip 310+ Non-Interchangeable Trip Units

Standard LS			Factory Assembled Circu	it Breaker Consisting of Fran	ne and Trip Unit Less Termi	inals ^①		
Adjustable Short Time Independently Adjustable Pickup with I ² t Short Independently Adjustable Continuous Ampere Pickup with I ² t Short Time Pickup and Delay and Ground Fault Short Time Pickup and Neutral CT for					LSG	LSIG		
at 40 °C of Poles Catalog Number Information	Continuous Ampere Rating	Number of Poles	Pickup with I ² t Short Delay Ramp		Pickup with I ² t Short Delay and Ground Fault	Short Time Pickup and	LSG and LSIG 23	Terminal Information
600 3 LDB3600FT33W LDB3600FT32W LDB3600FT35W LDB3600FT36W LGFCT600 See Page	600	3	LDB3600FT33W	LDB3600FT32W	LDB3600FT35W	LDB3600FT36W	LGFCT600	•
600 3 HLDB3600FT33W HLDB3600FT32W HLDB3600FT35W HLDB3600FT36W V4-T2-284	600	3	HLDB3600FT33W	HLDB3600FT32W	HLDB3600FT35W	HLDB3600FT36W		V4-12-284
600 3 LDCB3600FT33W LDCB3600FT32W LDCB3600FT35W LDCB3600FT36W	600	3	LDCB3600FT33W	LDCB3600FT32W	LDCB3600FT35W	LDCB3600FT36W		

100% Rated Types CLD, CHLD and CLDC Electronic Circuit Breakers with Interchangeable Trip Units

The NEC allows the breaker to be rated at 100% of its frame size in an assembly, provided that 90 °C wire is applied at the 75 °C ampacity. All 100% rated circuit breakers have electronic trip units. Order as individual components: breaker frame, trip unit and terminals. See 310+ adjustability specifications on **Page V4-T2-286**.

100% Rated Types CLD, CHLD and CLDC Electronic Circuit Breakers with 310+ Interchangeable Trip Units

Maximum Continuous Ampere Rating at 40°C	Standard Interrupting Capacity 600 Vac Rated 35 kAIC at 480 Vac Catalog Number	·	Ultra High Interrupting Capacity Current Limiting 600 Vac Rated 100 kAIC at 480 Vac		Optional LSI	I ² t Short Delay	Adjustable Short Time Pickup and		Terminal Information
Three-Pole									
600	CLD3600F	CHLD3600F	CLDC3600F	LES3600LS	LES3600LSI	LES3600LSG	LES3600LSIG	LGFCT600	See Page V4-T2-284

- ① For AC use only.
- Required for four-wire systems if neutral protection is desired.
- ③ Included with LSG and LSIG trip units.
- Meutral is in right pole.

Type LDB Thermal-Magnetic Circuit Breakers with Non-Interchangeable Trip Units ${\tiny \odot}$

	-	
	600 Vac Rated, 250 Vdc Complete Circuit Breaker	
Maximum Continuous	Without Line and Load Terminals	With Standard Line and Load Terminals Only
Ampere Rating	Catalog Number	Catalog Number
Two-Pole		
300	LDB2300W	LDB2300
350	LDB2350W	LDB2350
400	LDB2400W	LDB2400
450	LDB2450W	LDB2450
500	LDB2500W	LDB2500
600	LDB2600W	LDB2600
Three-Pole		
300	LDB3300W	LDB3300
350	LDB3350W	LDB3350
400	LDB3400W	LDB3400
450	LDB3450W	LDB3450
500	LDB3500W	LDB3500
600	LDB3600W	LDB3600

Molded Case Switches

Eaton's molded case switches are used as compact switches in applications requiring high current switching capabilities. Molded case switches are constructed of circuit breaker components and are of the high instantaneous automatic type. Molded case switches are listed in accordance with Underwriters Laboratories Standard UL 489.

Molded Case Switches

	600 Vac Maximum, 250 Vdc Circuit Breaker Only	Standard Terminals Only		
Maximum Continuous Ampere	without Line and Load Terminals	See Page V4-T2-307 for Optional Terminals		
Rating at 40 °C	Catalog Number	Catalog Number		
Two-Pole				
600	LD2600WK	2TA603LDK		
600	LDB2600WK ①	2TA603LDK		
600	HLD2600WK	2TA603LDK		
Three-Pole				
600	LD3600WK	3TA603LDK		
600	LDB3600WK ①	3TA603LDK		
600	HLD3600WK	3TA603LDK		
Four-Pole				
600	LD4600WK	4TA603LDK		
600	LDB4600WK ①	4TA603LDK		
600	HLD4600WK	4TA603LDK		

Notes

Molded case switch will trip above 6000 amperes.

[•] Factory sealed—suitable for reverse feed application.

Digitrip OPTIM Electronic Circuit Breaker with Interchangeable Rating Plug

Order as individual components: Breaker Frame (which includes Trip Unit), Rating Plug, Terminals.

Digitrip OPTIM 550 Electronic Circuit Breaker with Interchangeable Rating Plug

Circuit Breaker Frame Only L – Adjustable Long Delay Pickup (I _r) with Adjustable Long Delay Time (I ² t or I ⁴ t Response) © S – Adjustable Short Delay Pickup with Adjustable Short Delay Time (I ² t or Flat Response) I – Adjustable Instantaneous Pickup G – Adjustable Ground Fault Pickup with Adjustable Ground Fault Time (I ² t or Flat Response) A – Adjustable Ground Fault Alarm with Adjustable Ground Fault Time (I ² t or Flat Response) Maximum OPTIM 550 ②						
Continuous Ampere	LSI	LSIG	LSIA		Fixed Rating Plug	
Rating at 40 °C	Catalog Number	Catalog Number	Catalog Number	Ampere Rating	Catalog Number	
Three-Pole Stan	dard Interrupting Capacity	600 Vac Rated 35 kAIC at 48	0 Vac			
125	LD3125T52W	LD3125T56W	LD3125T57W	_	ORPL125A070	
				_	ORPL125A090	
				_	ORPL125A100	
					ORPL125A110	
				_	ORPL125A125	
250	LD3250T52W	LD3250T56W	LD3250T57W	_	ORPL025A125	
					ORPL025A150	
				_	ORPL025A175	
				_	ORPL025A200	
					ORPL025A225	
				_	ORPL025A250	
400	LD3400T52W	LD3400T56W	LD3400T57W	200	ORPL40A200	
				225	ORPL40A225	
				250	ORPL40A250	
				300	ORPL40A300	
				350	ORPL40A350	
				400	ORPL40A400	
600	LD3600T52W	LD3600T56W	LD3600T57W	300	ORPL60A300	
				350	ORPL60A350	
				400	ORPL60A400	
				500	ORPL60A500	
				600	ORPL60A600	

① Long delay I⁴t response selection limits short delay time to flat response.

② Zone interlocking, PowerNet, or both features can be added at the factory by adding suffixes ZG, PN or ZGP respectively to above catalog number.

Digitrip OPTIM 550 Electronic Circuit Breaker with Interchangeable Rating Plug, continued

Circuit Breaker Frame Only

Digitrip OPTIM Rating Plug Only

- L Adjustable Long Delay Pickup (I_r) with Adjustable Long Delay Time (I²t or I⁴t Response) ①
 S Adjustable Short Delay Pickup with Adjustable Short Delay Time (I²t or Flat Response)
 I Adjustable Instantaneous Pickup
 G Adjustable Ground Fault Pickup with Adjustable Ground Fault Time (I²t or Flat Response)

- $\textbf{A}-\textbf{Adjustable Ground Fault Alarm with Adjustable Ground Fault Time (I2t or Flat Response)}$

Maximum	OPTIM 550 ②								
Continuous Ampere	LSI	LSIG	LSIA		Fixed Rating Plug				
Rating at 40 °C	Catalog Number	Catalog Number	Catalog Number	Ampere Rating	Catalog Number				
Three-Pole High	Interrupting Capacity 600 \	/ac Rated 65 kAIC at 480 Va	С						
125	HLD3125T52W	HLD3125T56W	HLD3125T57W	70	ORPL125A070				
				90	ORPL125A090				
				100	ORPL125A100				
				110	ORPL125A110				
				125	ORPL125A125				
250	HLD3250T52W	HLD3250T56W	HLD3250T57W	125	ORPL025A125				
				150	ORPL025A150				
				175	ORPL025A175				
				200	ORPL025A200				
				225	ORPL025A225				
				250	ORPL025A250				
400	HLD3400T52W	HLD3400T56W	HLD3400T57W	200	ORPL40A200				
				225	ORPL40A225				
				250	ORPL40A250				
				300	ORPL40A300				
				350	ORPL40A350				
				400	ORPL40A400				
600	HLD3600T52W	HLD3600T56W	HLD3600T57W	300	ORPL60A300				
				350	ORPL60A350				
				400	ORPL60A400				
				500	ORPL60A500				
				600	ORPL60A600				

 $^{^{\}scriptsize \textcircled{\tiny 1}}$ Long delay $\ensuremath{\mbox{\scriptsize I}}\xspace^4\mbox{\scriptsize t}$ response selection limits short delay time to flat response.

² Zone interlocking, PowerNet, or both features can be added at the factory by adding suffixes ZG, PN or ZGP respectively to above catalog number.

Digitrip OPTIM 550 Electronic Circuit Breaker with Interchangeable Rating Plug, continued

•			•	0.	
	Circuit Breaker Fram	e Only		Digitrip OPTI	/I Rating Plug Only
M aximum	S – Adjustable Short I – Adjustable Instai G – Adjustable Groui	Delay Pickup with Adjustable ntaneous Pickup nd Fault Pickup with Adjustab	ble Long Delay Time (1 ² t or 1 ⁴ t Re e Short Delay Time (1 ² t or Flat Res le Ground Fault Time (1 ² t or Flat R e Ground Fault Time (1 ² t or Flat Ro	sponse) Response)	
ontinuous mpere	LSI	LSIG	LSIA		Fixed Rating Plug
ating t 40 °C	Catalog Number	Catalog Number	Catalog Number	Ampere Rating	Catalog Number
hree-Pole Ultra	High Interrupting Capaci	ty Current Limiting 600 Va	ac Rated 100 kAIC at 480 Va	С	
25	LDC3125T52W	LDC3125T56W	LDC3125T57W	_	ORPL125A070
				_	ORPL125A090
				_	ORPL125A100
				_	ORPL125A110
				_	ORPL125A125
50	LDC3250T52W	LDC3250T56W	LDC3250T57W	_	ORPL025A125
				_	ORPL025A150
				_	ORPL025A175
				_	ORPL025A200
				_	ORPL025A225
				_	ORPL025A250
00	LDC3400T52W	LDC3400T56W	LDC3400T57W	200	ORPL40A200
				225	ORPL40A225
				250	ORPL40A250
				300	ORPL40A300
				350	ORPL40A350
				400	ORPL40A400
00	LDC3600T52W	LDC3600T56W	LDC3600T57W	300	ORPL60A300
				350	ORPL60A350

Notes

400

500

600

ORPL60A400

ORPL60A500

ORPL60A600

 $^{^{\}scriptsize \textcircled{\tiny 1}}$ Long delay I^4t response selection limits short delay time to flat response.

② Zone interlocking, PowerNet, or both features can be added at the factory by adding suffixes ZG, PN or ZGP respectively to above catalog number.

Digitrip OPTIM Electronic Circuit Breaker with Interchangeable Rating Plug

Order as individual components: Breaker Frame (which includes Trip Unit), Rating Plug, Terminals.

Digitrip OPTIM 1050 Electronic Circuit Breaker with Interchangeable Rating Plug

Circuit Breaker Frame Only	Digitrip OPTIM Rating Plug Only
L – Adjustable Long Delay Pickup (I _r) with Adjustable Long Delay Time (I ² t or I ⁴ t Response) ①	

S – Adjustable Short Delay Pickup with Adjustable Short Delay Time (I²t or Flat Response)

I – Adjustable Instantaneous Pickup

G – Adjustable Ground Fault Pickup with Adjustable Ground Fault Time (I^2 t or Flat Response) A – Adjustable Ground Fault Alarm with Adjustable Ground Fault Time (I^2 t or Flat Response)

Maximum Continuous	OPTIM 1050 ②③ LSIG	Alarm with Adjustable Ground Fault Time (1-t or r	rat nesponse)	Fire d Detice Dive	
Ampere Rating at 40 °C	Catalog Number	Catalog Number	Ampere Rating	Fixed Rating Plug Catalog Number	
Three-Pole Sta	ndard Interrupting Capacity 600	Vac Rated 35 kAIC at 480 Vac			
125	LD3125T106W	LD3125T107W	70	ORPL125A070	
			90	ORPL125A090	
			100	ORPL125A100	
			110	ORPL125A110	
			125	ORPL125A125	
250	LD3250T106W	LD3250T107W	125	ORPL025A125	
			150	ORPL025A150	
			175	ORPL025A175	
			200	ORPL025A200	
			225	ORPL025A225	
			250	ORPL025A250	
400	LD3400T106W	LD3400T107W	200	ORPL40A200	
			225	ORPL40A225	
			250	ORPL40A250	
			300	ORPL40A300	
			350	ORPL40A350	
			400	ORPL40A400	
600	LD3600T106W	LD3600T107W	300	ORPL60A300	
			350	ORPL60A350	
			400	ORPL60A400	
			500	ORPL60A500	
			600	ORPL60A600	

① Long delay I⁴t response selection limits short delay time to flat response.

② One Form C auxiliary switch and one Form C bell alarm switch supplied with breaker as standard.

³ Factory sealed.

Digitrip OPTIM 1050 Electronic Circuit Breaker with Interchangeable Rating Plug, continued

Maximum Continuous Ampere	I – Adjustable Instantaneous G – Adjustable Ground Fault P				
lating t 40 °C	Catalog Number	Catalog Number	Ampere Rating	Fixed Rating Plug Catalog Number	
	n Interrupting Capacity 600 Vac Ra		nauny	Number	
25	HLD3125T106W	HLD3125T107W	70	ORPL125A070	
-0	11250125115511		90	ORPL125A090	
			100	ORPL125A100	
			110	ORPL125A110	
			125	ORPL125A125	
50	HLD3250T106W	HLD3250T107W	125	ORPL025A125	
			150	ORPL025A150	
			175	ORPL025A175	
			200	ORPL025A200	
			225	ORPL025A225	
			250	ORPL025A250	
00	HLD3400T106W	HLD3400T107W	200	ORPL40A200	
			225	ORPL40A225	
			250	ORPL40A250	
			300	ORPL40A300	
			350	ORPL40A350	
			400	ORPL40A400	
00	HLD3600T106W	HLD3600T107W	300	ORPL60A300	
			350	ORPL60A350	
			400	ORPL60A400	
			500	ORPL60A500	
			600	ORPL60A600	

- $^{\scriptsize \textcircled{\tiny 1}}$ Long delay I^4t response selection limits short delay time to flat response.
- ${}^{\textcircled{2}} \ \ \text{One Form C auxiliary switch and one Form C bell alarm switch supplied with breaker as standard.}$
- ③ Factory sealed.

Digitrip OPTIM 1050 Electronic Circuit Breaker with Interchangeable Rating Plug, continued

Circuit Breaker Frame Only

 $\begin{array}{l} L \ - \ Adjustable \ Long \ Delay \ Pickup \ (I_r) \ with \ Adjustable \ Long \ Delay \ Time \ (I^2t \ or \ I^4t \ Response) \odot \\ S \ - \ Adjustable \ Short \ Delay \ Time \ (I^2t \ or \ Flat \ Response) \odot \\ I \ - \ Adjustable \ Instantaneous \ Pickup \ with \ Adjustable \ Ground \ Fault \ Time \ (I^2t \ or \ Flat \ Response) \\ G \ - \ Adjustable \ Ground \ Fault \ Alarm \ with \ Adjustable \ Ground \ Fault \ Time \ (I^2t \ or \ Flat \ Response) \\ A \ - \ Adjustable \ Ground \ Fault \ Alarm \ with \ Adjustable \ Ground \ Fault \ Time \ (I^2t \ or \ Flat \ Response) \\ \end{array}$

Maximum Continuous Ampere Rating at 40°C	OPTIM 1050 23 LSIG Catalog Number	LSIA Catalog Number	Ampere Rating	Fixed Rating Plug Catalog Number
Γhree-Pole Ultra	High Interrupting Capacity Current	Limiting 600 Vac Rated 100 kAIC at 480 Vac	;	
125	LDC3125T106W	LDC3125T107W	70	ORPL125A070
			90	ORPL125A090
			100	ORPL125A100
			110	ORPL125A110
			125	ORPL125A125
50	LDC3250T106W	LDC3250T107W	125	ORPL025A125
			150	ORPL025A150
			175	ORPL025A175
			200	ORPL025A200
			225	ORPL025A225
			250	ORPL025A250
00	LDC3400T106W	LDC3400T107W	200	ORPL40A200
			225	ORPL40A225
			250	ORPL40A250
			300	ORPL40A300
			350	ORPL40A350
			400	ORPL40A400
00	LDC3600T106W	LDC3600T107W	300	ORPL60A300
			350	ORPL60A350
			400	ORPL60A400
			500	ORPL60A500
			600	ORPL60A600

Digitrip OPTIM Rating Plug Only

 $^{^{\}scriptsize \textcircled{\tiny 1}}$ Long delay I^4t response selection limits short delay time to flat response.

② One Form C auxiliary switch and one Form C bell alarm switch supplied with breaker as standard.

③ Factory sealed.

100% Rated Digitrip OPTIM Circuit Breakers with Interchangeable Rating Plug

Order as individual components: Breaker Frame (which includes Trip Unit), Rating Plug, Terminals.

100% Rated	Digitrip OPTIM 550 Circ	uit Breakers with Intercha	angeable Rating Plug		
Maximum	S — Adjustable Short Del I — Adjustable Instantan G — Adjustable Ground Fa	ry Pickup (I _r) with Adjustable Long D ay Pickup with Adjustable Short Del	Digitrip OPTIM Rating Plug Only		
Continuous	LSI	LSIG	LSIA		Fixed Rating Plug
Ampere Rating at 40 °C	Catalog Number	Catalog Number	Catalog Number	Ampere Rating	Catalog Number
Three-Pole Sta	ndard Interrupting Capacity 6	600 Vac Rated 35 kAIC at 480 V	ac		
125	CLD3125T52W	CLD3125T56W	CLD3125T57W	70	ORPL125A070
				90	ORPL125A090
				100	ORPL125A100
				110	ORPL125A110
				125	ORPL125A125
250	CLD3250T52W	CLD3250T56W	CLD3250T57W	125	ORPL025A125
				150	ORPL025A150
				175	ORPL025A175
				200	ORPL025A200
				225	ORPL025A225
				250	ORPL025A250
400	CLD3400T52W	CLD3400T56W	CLD3400T57W	200	ORPL40A200
				225	ORPL40A225
				250	ORPL40A250
				300	ORPL40A300
				350	ORPL40A350
				400	ORPL40A400
600	CLD3600T52W	CLD3600T56W	CLD3600T57W	300	ORPL60A300
				350	ORPL60A350
				400	ORPL60A400
				500	ORPL60A500

600

ORPL60A600

 $^{^{\}scriptsize \textcircled{\tiny 1}}$ Long delay I^4t response selection limits short delay time to flat response.

② Zone interlocking, PowerNet, or both features can be added at the factory by adding suffixes ZG, PN or ZGP respectively to above catalog number.

100% Rated Digitrip OPTIM 550 Circuit Breakers with Interchangeable Rating Plug, continued

Circuit Breaker Frame Only

Digitrip OPTIM Rating Plug Only

- L $\,$ Adjustable Long Delay Pickup (I $_{\rm r}$) with Adjustable Long Delay Time (I $^{\rm 2}$ t or I $^{\rm 4}$ t Response) $^{\odot}$
- S Adjustable Short Delay Pickup with Adjustable Short Delay Time (I^2 t or Flat Response) I Adjustable Instantaneous Pickup
- G Adjustable Ground Fault Pickup with Adjustable Ground Fault Time (I²t or Flat Response)
- $A Adjustable \ Ground \ Fault \ Alarm \ with \ Adjustable \ Ground \ Fault \ Time \ (I^2t \ or \ Flat \ Response)$

Maximum Continuous	OPTIM 550 ^②		•		
Ampere Rating It 40 °C	LSI Catalog Number	LSIG Catalog Number	LSIA Catalog Number	Ampere Rating	Fixed Rating Plug Catalog Number
hree-Pole High	h Interrupting Capacity 600 V	ac Rated 65 kAIC at 480 Vac			
25	CHLD3125T52W	CHLD3125T56W	CHLD3125T57W	70	ORPL125A070
				90	ORPL125A090
				100	ORPL125A100
				110	ORPL125A125
				125	ORPL125A125
50	CHLD3250T52W	CHLD3250T56W	CHLD3250T57W	125	ORPL025A125
				150	ORPL025A150
				175	ORPL025A175
				200	ORPL025A200
				225	ORPL025A225
				250	ORPL025A250
00	CHLD3400T52W	CHLD3400T56W	CHLD3400T57W	200	ORPL40A200
				225	ORPL40A225
				250	ORPL40A250
				350	ORPL40A350
				400	ORPL40A400
00	CHLD3600T52W	CHLD3600T56W	CHLD3600T57W	300	ORPL60A300
				350	ORPL60A350
				400	ORPL60A400
				500	ORPL60A500
				600	ORPL60A600

① Long delay I⁴t response selection limits short delay time to flat response.

² Zone interlocking, PowerNet, or both features can be added at the factory by adding suffixes ZG, PN or ZGP respectively to above catalog number.

350 400

500

600

ORPL60A400

ORPL60A500

ORPL60A600

100% Rated Digitrip OPTIM 550 Circuit Breakers with Interchangeable Rating Plug, continued

Maximum Continuous	S – Adjustable Short Dela I – Adjustable Instantane G – Adjustable Ground Fa A – Adjustable Ground Fa OPTIM 550 ②	y Pickup (I _r) with Adjustable Long Di y Pickup with Adjustable Short Dela ous Pickup ult Pickup with Adjustable Ground F ult Alarm with Adjustable Ground Fa	Digitrip OPTIM Rating Plug Only		
Ampere	LSI Codelon	LSIG	LSIA	A	Fixed Rating Plug
Rating at 40 °C	Catalog Number	Catalog Number	Catalog Number	Ampere Rating	Catalog Number
Three-Pole Ultr	ra High Interrupting Capacity	Current Limiting 600 Vac Rate	d 100 kAIC at 480 Vac		
125	CLDC3125T52W	CLDC3125T56W	CLDC3125T57W	70	ORPL125A070
				90	ORPL125A090
				100	ORPL125A100
				110	ORPL125A110
				125	ORPL125A125
250	CLDC3250T52W	CLDC3250T56W	CLDC3250T57W	125	ORPL025A125
				150	ORPL025A150
				175	ORPL025A175
				200	ORPL025A200
				225	ORPL025A225
				250	ORPL025A250
400	CLDC3400T52W	CLDC3400T56W	CLDC3400T57W	200	ORPL40A200
				225	ORPL40A225
				250	ORPL40A250
				300	ORPL40A300
				350	ORPL40A350
				400	ORPL40A400
600	CLDC3600T52W	CLDC3600T56W	CLDC3600T57W	300	ORPL60A300
				350	ORPL60A350

 $^{^{\}scriptsize \textcircled{\tiny 1}}$ Long delay I^4t response selection limits short delay time to flat response.

② Zone interlocking, PowerNet, or both features can be added at the factory by adding suffixes ZG, PN or ZGP respectively to above catalog number.

100% Rated Digitrip OPTIM 1050 Circuit Breakers with Interchangeable Rating Plug

Circuit Breaker Frame Only Digitrip OPTIM Rating Plug Only

- L Adjustable Long Delay Pickup (I_r) with Adjustable Long Delay Time (I²t or I⁴t Response) © S Adjustable Short Delay Pickup with Adjustable Short Delay Time (I²t or Flat Response) I Adjustable Instantaneous Pickup
- G Adjustable Ground Fault Pickup with Adjustable Ground Fault Time (I²t or Flat Response)
- A Adjustable Ground Fault Alarm with Adjustable Ground Fault Time (I²t or Flat Response)

Maximum Continuous	OPTIM 1050 @3					
Ampere	LSIG	LSIA		Fixed Rating Plug		
Rating at 40 °C	Catalog Number	Catalog Number	Ampere Rating	Catalog Number		
Three-Pole Star	ndard Interrupting Capacity 600	Vac Rated 35 kAIC at 480 Vac				
125	CLD3125T106W	CLD3125T107W	70	ORPL125A070		
			90	ORPL125A090		
			100	ORPL125A100		
			110	ORPL125A110		
			125	ORPL125A125		
250	CLD3250T106W	CLD3250T107W	125	ORPL025A125		
			150	ORPL025A150		
			175	ORPL025A175		
			200	ORPL025A200		
			225	ORPL025A225		
			250	ORPL025A250		
400	CLD3400T106W	CLD3400T107W	200	ORPL40A200		
			225	ORPL40A225		
			250	ORPL40A250		
			300	ORPL40A300		
			350	ORPL40A350		
			400	ORPL40A400		
600	CLD3600T106W	CLD3600T107W	300	ORPL60A300		

350

400

500

600

ORPL60A350

ORPL60A400

ORPL60A500 ORPL60A600

 $^{^{\}scriptsize \textcircled{\tiny 1}}$ Long delay I^4t response selection limits short delay time to flat response.

② One Form C auxiliary switch and one Form C bell alarm switch supplied with breaker as standard.

③ Factory sealed.

100% Rated Digitrip OPTIM 1050 Circuit Breakers with Interchangeable Rating Plug, continued

Circuit Breaker Frame Only

Digitrip OPTIM Rating Plug Only

- L Adjustable Long Delay Pickup (I_r) with Adjustable Long Delay Time (I²t or I⁴t Response) ① S — Adjustable Short Delay Pickup with Adjustable Short Delay Time (I²t or Flat Response) I — Adjustable Instantaneous Pickup
- G Adjustable Ground Fault Pickup with Adjustable Ground Fault Time (I²t or Flat Response)
- A Adjustable Ground Fault Alarm with Adjustable Ground Fault Time (I²t or Flat Response)

Maximum	OPTIM 1050 23
•	

Continuous					
Jontinuous Ampere	LSIG	LSIA		Fixed Rating Plug	
Rating	Catalog	Catalog	Ampere	Catalog	
nt 40 °C	Number	Number	Rating	Number	
	n Interrupting Capacity 600 Vac R	ated 65 kAIC at 480 Vac			
125	CHLD3125T106W	CHLD3125T107W	70	ORPL125A070	
			90	ORPL125A090	
			100	ORPL125A100	
			110	ORPL125A110	
			125	ORPL125A125	
250	CHLD3250T106W	CHLD3250T107W	125	ORPL025A125	
			150	ORPL025A150	
			175	ORPL025A175	
			200	ORPL025A200	
			225	ORPL025A225	
			250	ORPL025A250	
100	CHLD3400T106W	CHLD3400T107W	200	ORPL40A200	
			225	ORPL40A225	
			250	ORPL40A250	
			300	ORPL40A300	
			350	ORPL40A350	
			400	ORPL40A400	
600	CHLD3600T106W	CHLD3600T107W	300	ORPL60A300	
			350	ORPL60A350	
			400	ORPL60A400	
			500	ORPL60A500	
			600	ORPL60A600	

 $^{^{\}scriptsize \textcircled{1}}$ Long delay $\mathsf{I}^4\mathsf{t}$ response selection limits short delay time to flat response.

② One Form C auxiliary switch and one Form C bell alarm switch supplied with breaker as standard.

③ Factory sealed.

100% Rated Digitrip OPTIM 1050 Electronic Circuit Breaker with Interchangeable Rating Plug, continued

Circuit Breaker Frame Only

Digitrip OPTIM Rating Plug Only

600

ORPL60A600

- L $\,$ Adjustable Long Delay Pickup (I $_{r})$ with Adjustable Long Delay Time (I ^{2}t or I ^{4}t Response) $^{\odot}$ S $\,$ – Adjustable Short Delay Pickup with Adjustable Short Delay Time (I^2 t or Flat Response)
- I Adjustable Instantaneous Pickup
- Adjustable Ground Fault Pickup with Adjustable Ground Fault Time (I²t or Flat Response)
 Adjustable Ground Fault Alarm with Adjustable Ground Fault Time (I²t or Flat Response)

IVIAXIIIIUIII	
Continuous	

Maximum Continuous Ampere Rating	A — Adjustable Ground Fault A OPTIM 1050 ②③ LSIG Catalog	.larm with Adjustable Ground Fault Time (1º4 or Fla LSIA Catalog	at Hesponse) Ampere	Fixed Rating Plug Catalog
at 40 °C	Number	Number	Rating	Number
Three-Pole Ultra	a High Interrupting Capacity Curr	ent Limiting 600 Vac Rated 100 kAIC at 48	0 Vac	
125	CLDC3125T106W	CLDC3125T107W	70	ORPL125A070
			90	ORPL125A090
			100	ORPL125A100
			110	ORPL125A110
			125	ORPL125A125
250	CLDC3250T106W	CLDC3250T107W	125	ORPL025A125
			150	ORPL025A150
			175	ORPL025A175
			200	ORPL025A200
			225	ORPL025A225
			250	ORPL025A250
400	CLDC3400T106W	CLDC3400T107W	200	ORPL40A200
			225	ORPL40A225
			250	ORPL40A250
			300	ORPL40A300
			350	ORPL40A350
			400	ORPL40A400
600	CLDC3600T106W	CLDC3600T107W	300	ORPL60A300
			350	ORPL60A350
			400	ORPL60A400
			500	ORPL60A500

- $^{\scriptsize \textcircled{\tiny 1}}$ Long delay I^4t response selection limits short delay time to flat response.
- ② One Form C auxiliary switch and one Form C bell alarm switch supplied with breaker as standard.
- ③ Factory sealed.

Accessories Selection Guide and Ordering Information

Line and Load Terminals

Eaton's line and load terminals provide wire connecting capabilities for specific ranges of continuous current ratings and wire types. All terminals comply with Underwriters Laboratories Standards UL 486A and UL 486B and CSA Standard C22.2 No. 65M. Unless otherwise specified,

L-Frame circuit breaker line and load terminals are shipped separately for field installation.

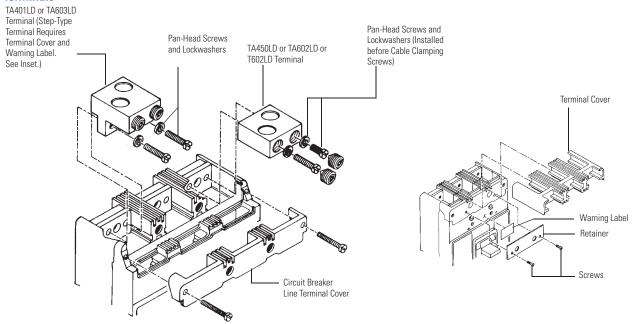
The wire connecting terminal is secured with two panhead, slotted screws and lockwashers that can be checked for the correct torque loading or retightened from the front of the circuit

breaker before installation of the conductors. (Applies to all styles.) The circuit breaker line/load terminal conductors are positioned in the conducting holes in the wire connecting terminal and are secured with recessed socket screws that are tightened to the correct torque loading from the front of the circuit breaker.

Ordering Information

L-Frame circuit breakers use Cu/AI terminals as standard. When optional copper terminals are required, order by catalog Number. Specify if factory installation is required.

Terminals



Line and Load Terminals

Maximum Terminal			AWG Wire	AWG Wire			Terminals with Control Wire Termination
Breaker Amperes	Body Material	Wire Type	Wire Range/Number	Metric Wire Range mm ²	Poles	Catalog Number	Catalog Number
Standard Cu	/Al Pressure Term	inals					
400	Aluminum	Cu/Al	4/0-600 (1)	120-300	Two-pole kit ①	2TA401LDK	_
400	Aluminum	Cu/Al	4/0-600 (1)	120-300	Three-pole kit ①	3TA401LDK	_
400	Aluminum	Cu/Al	4/0-600 (1)	120-300	Four-pole kit ①	4TA401LDK	_
450	Aluminum	Cu/Al	4-4/0 (2)	25–95	2	TA450LD	_
500	Aluminum	Cu/Al	3/0-350 (2)	95–150	2	TA602LD	TA602LDCW
600	Aluminum	Cu/Al	400-500 (2)	185–240	Two-pole kit ①	2TA603LDK	2TA603LDKCW
600	Aluminum	Cu/Al	400-500 (2)	185–240	Three-pole kit ①	3TA603LDK	3TA603LDKCW
600	Aluminum	Cu/AI	400-500 (2)	185–240	Four-pole kit ①	4TA603LDK	4TA603LDKCW
Optional Cop	per and Cu/Al Pr	essure Type	Terminals				
600	Copper	Cu	250-350 (2)	120-250	2	T602LD	T602LDCW

- ① Terminal kits contain one terminal for each pole and one terminal cover.
- ² Individually packed.

Accessories

Allowable Accessory Combinations

Different combinations of accessories can be supplied, depending on the types of accessories and the number of poles in the circuit breaker.

LD Frame Accessories

	Reference	ference Two-Pole ^① , Three-Pole			e Four-Pole			
Description	Page	Left	Center	Right	Left	Center	Right	Neutral ②
Internal Accessories (Only One Internal Accessory Per Pole) ^③								
Alarm lockout (Make/Break)	V4-T2-380							
Alarm lockout (2Make/2Break)	V4-T2-380							
Auxiliary switch (1A, 1B)	V4-T2-382							
Auxiliary switch (2A, 2B)	V4-T2-382							
Auxiliary switch (3A, 3B)	V4-T2-382							
Auxiliary switch (1A, 1B) and alarm switch combination	V4-T2-384							
Auxiliary switch (2A, 2B) and alarm switch combination	V4-T2-384							
Shunt trip—standard ④	V4-T2-386							
Shunt trip—low energy ⁽⁴⁾	V4-T2-389							
Undervoltage release mechanism (4)	V4-T2-395							
Eaton PowerNet communications kit (OPTIM 550)	V4-T2-397							
External Accessories								
End cap kit	V4-T2-414	•	•	•	•	•	•	•
Control wire terminal kit	V4-T2-415	•	•	•	•	•	•	•
Base mounting hardware	V4-T2-417	•	•	•	•	•	•	•
Terminal shields	V4-T2-419	•	•	•	•	•	•	•
Interphase barriers	V4-T2-419	•	•	•	•	•	•	•
Non-padlockable handle block	V4-T2-420							
Padlockable handle lock hasp	V4-T2-421							
Key interlock kit	V4-T2-422							
Sliding bar interlock—requires two breakers	V4-T2-423	•	•	•				
Walking beam interlock—requires two breakers	V4-T2-423	•	•	•	•	•	•	•
Electrical (motor) operator	V4-T2-424	•	•	•	•	•	•	•
Plug-in adapters	V4-T2-426	•	•	•	•	•	•	•
Rear connecting studs	V4-T2-427	•	•	•	•	•	•	•
Panelboard connecting straps	V4-T2-428	•	•	•	•	•	•	•
Handle mechanisms	V4-T2-508	•	•	•	•	•	•	•
Handle extension	V4-T2-522	•	•	•	•	•	•	•
Solid-state (electronic) portable test kit	V4-T2-430	•	•	•	•	•	•	•

Legend

- Applicable in indicated pole position
- ☐ May be mounted on left or right pole—not both
- Accessory available/modification available

- $^{\scriptsize \textcircled{1}}$ Two-pole breaker supplied in three-pole frame. Current carrying parts omitted from center pole.
- $\ensuremath{@}$ Refer to Eaton for appropriate neutral pole accessory combinations.
- ③ OPTIM model 1050 is factory sealed and does not have the right pole space available for accessories.
- Shunt trip and UVR cannot be mounted in right poles on LES or OPTIM trip units. Standard non-tripping internal accessories can be mounted in the left or right poles of LES and 550 OPTIM trip units.

LD Frame Accessories, continued

	Reference	Two-P	Two-Pole ①, Three-Pole		Four-Po	Four-Pole		
Description	Page	Left Center Ri		Right	Left	Center	Right	Neutral ②
OPTIM System Components Three Poles								
Ground fault alarm unit	V4-T2-430							
Potential transformer module	V4-T2-430							
Breaker interface module (BIM)	V4-T2-431							
Digitrip OPTIMizer	V4-T2-431							
Auxiliary power module	V4-T2-431							
Modifications (Refer to Eaton)								
Special calibration	_	•	•	•	•	•	•	•
Moisture fungus treatment	V4-T2-220	•	•	•	•	•	•	•
Freeze-tested circuit breakers	_	•	•	•	•	•	•	•
Marine/naval application	_	•	•	•	•	•	•	•

Legend

- Applicable in indicated pole position
- ☐ May be mounted on left or right pole—not both
- Accessory available/modification available

310+ Electronic Trip Unit Accessories

Description	Catalog Number
Electronic portable test kit	MTST230V ③
Trip unit tamper protection wire seal	5108A03H01
External neutral sensor	LGFCT600 @
Breaker-mount cause-of-trip indication	TRIP-LED
Breaker-mount ammeter module	DIGIVIEW
Remote-mount ammeter module	DIGIVIEWR06®

- ① Two-pole breaker supplied in three-pole frame. Current carrying parts omitted from center pole.
- ② Refer to Eaton for appropriate neutral pole accessory combinations.
- 3 MTST230V applies to 100–230 Vac.
- Included with all LD LSG and LSIG trip units and breakers.
- (§) Includes 6 ft cable for remote mounting; NEMA 3R rated.

Technical Data and Specifications

UL 489 Interrupting Capacity Ratings ①

Circuit		Interrupti	ng Capacity (kA					
Breaker	Number	Volts AC	(50/60 Hz)	Volts DC	Volts DC			
Туре	of Poles	240	277	480	600	125	250 23	
LDB	2, 3	65	_	35	25	_	22	
LD	2, 3, 4	65	_	35	25	_	22	
CLD @	2, 3, 4	65	_	35	25	_	_	
HLD, HLDB	2, 3, 4	100	_	65	35	_	25	
CHLD @	2, 3, 4	100	_	65	35	_	_	
LDC, LDCB ®	2, 3, 4	200	_	100	50	_	30	
CLDC 46	2, 3, 4	200	_	100	50	_	_	

IEC 947-2 Interrupting Capacity Ratings ①

Interrupting Capacity (kA Symmetrical Amperes) Volts AC (50/60 Hz) **Volts DC** Circuit 240 415 690 **250** 23 **Breaker** Number Type of Poles Icu I_{cs} Icu Ics Icu Ics Icu I_{cs} LDB 2, 3 85 85 20 10 20 10 45 45 LD 2, 3, 4 85 85 45 45 20 10 20 10 CLD 4 2, 3, 4 85 85 45 45 20 10 HLD, HLDB 2, 3, 4 70 70 25 13 10 CHLD 4 2, 3, 4 100 100 70 70 25 13 LDC, LDCB 2, 3, 4 200 100 100 75 35 18 20 10 CLDC 4 2, 3, 4 100 100 75 35 18

UL 489 Current Limiting Data

Frame	Circuit	Ip (kA)	I ² T (10 ⁶ A ² S)
LDC	240 V/200 kA	64.80	6.80
LDC	480 V/100 kA	66.90	9.33
LDC	600 V/50 kA	54.30	8.92

- $^{\scriptsize\textcircled{1}}$ Utilization Category A circuit breakers.
- ② L/R = 8 milliseconds minimum.
- ③ Two-pole circuit breaker or two poles of three-pole circuit breaker. Incorporating thermal-magnetic trip unit only.
- 4 100% rated breakers.
- © Current limiting.

310+ Specifications

Description	Specification	
Trip Unit Type	Digitrip RMS 310+	
Breaker Type		
Frame designation	LD	
Frames available	600 A	
Continuous current range (A)	250–600 A	
Ground fault pickup (A)	120–600 A	
Interrupting capacities at 480 Vac (kAIC)	35, 65, 100	
100% rated	Yes	
Protection		
Ordering options	LS, LSI, LSG, LSIG, ALSI, ALSIG	
Arcflash Reduction Maintenance System (or Maintenance Mode)	Remote enabled on ALSI, ALSIG	
Interchangeable trip unit	Yes	
High load alarm (suffix B20) ①	Yes	
Ground fault alarm with trip (suffix B21) ①	LSG, LSIG, ALSIG	
Ground fault alarm, no trip (suffix B22) ①	LSG, LSIG, ALSIG	
Zone selective interlocking (suffix ZG)	LSI, LSIG, ALSI, ALSIG	
Cause of trip indication	Yes (via TRIP-LED or DIGIVIEW)	
Thru-cover accessories	35, 65, 100 Yes LS, LSI, LSG, LSIG, ALSI, ALSIG Remote enabled on ALSI, ALSI Yes Yes LSG, LSIG, ALSIG LSG, LSIG, ALSIG LSI, LSIG, ALSI, ALSIG	

310+ Adjustability Specifications

Description		LD Frame Specification
310+ settings		600 A
I _r = continuous current or long delay pickup (amperes)	I _r	
(All 310+)	A	250
	В	300
	С	315
	D	350
	E	400
	F	450
	G	500
	H (= I _n)	600
t _r = long delay time (seconds)	2	2
(All 310+)	4	4
	7	7
	10	10
	12	12
	15	15
O+ settings	20	20
	24	24
$I_{sd}(x _r) = \text{short delay pickup}$	Position 1	2x
(Åll 310+)	Position 2	3x
	Position 3	4x
	Position 4	5x
	Position 5	6x
	Position 6	7x
	Position 7	8x
	Position 8	8x
	Position 9	8x
t _{sd} = short delay time I ² t (milliseconds) (LS and LSG)	Fixed	67 @10x
t _{sd} = short delay time flat (milliseconds)	Position 1	Inst
(LSI, LSIG, ALSI, ALSIG)	Position 2	120
	Position 3	300
$I_g(x I_n) = ground fault pickup (amperes)$	Position 1	120
(LSG, LSIG, ALSIG)	Position 2	180
	Position 3	240
	Position 4	360
	Position 5	480
	Position 6	600
t _g = ground fault delay time (milliseconds)	Position 1	Inst
(ĽSG, LSIG, ALSIG)	Position 2	120
	Position 3	300
Independently adjustable Instantaneous (Ii) setting	2	
Maintenance Mode pickup (2.5 x I _n) (amperes) (310+ with Maintenance Mode—ALSI and ALSIG)	Fixed	1500

- ① B2x suffixes cannot be combined with B2x suffixes.
- ® Not available for LD. Independently adjustable li setting available in LG, NG, and RG ALSI and ALSIG trip units.

Digitrip OPTIM Specifications

Trip Unit Type	Digitrip OPTIM 550	Digitrip OPTIM 1050	
rms sensing	Yes	Yes	
Breaker Type			
Frame	L	L	
Ampere range	200–600 A	200–600 A	
Interrupting rating at 480 volts	35, 65, 100 (kA)	35, 65, 100 (kA)	
Protection			
Ordering options	LSI, LSI(A), LSIG	LSI(A), LSIG	
Fixed rated plug (I _n)	Yes	Yes	
Overtemperature trip	Yes	Yes	
Long Delay Protection (L)			
Adjustable rating plug (I _n)	No	No	
Long delay pickup	0.4–1.0 x (I _n)	0.4–1.0 x (I _n)	
Long delay time l ² t	2–24 seconds	2-24 seconds	
Long delay time l ⁴ t	1–5 seconds	1–5 seconds	
Long delay thermal memory	Yes	Yes	
High load alarm	0.5–1.0 x I _r	0.5–1.0 x I _r	
Short Delay Protection (S)			
Short delay pickup	150-800% x (I _r)	150-800% x (I _r)	
Short delay time I ² t	100-500 ms	100-500 ms	
Short delay time flat	100–500 ms	100-500 ms	
Short delay time zone selective interlocking	Yes ①	Yes	
Instantaneous Protection (I)			
Instantaneous pickup	200-800% x (I _n)	200-800% x (I _n)	
Discriminator	Yes	Yes	
Instantaneous override	Yes	Yes	
Ground Fault Protection (G)			
Ground fault alarm	20-100% x (I _s)	20-100% x (I _s)	
Ground fault pickup	20–100% x (I _s)	20-100% x (I _s)	
Ground fault delay l ² t	100-500 ms	100-500 ms	
Ground fault delay flat	100-500 ms	100-500 ms	
Ground fault zone selective interlocking	Yes ①	Yes	
Ground fault thermal memory	Yes	Yes	

Legend

 $\begin{array}{ll} \text{BIM} = \text{Breaker Interface Module} \\ \text{(A)} = & \text{GF Alarm} \\ \text{I}_s = & \text{Sensor Rating} \\ \text{I}_n = & \text{Rating Plug} \\ \text{I}_r = & \text{Long Delay Pickup Setting} \\ \end{array}$

Note

① Zone interlock kit.

Digitrip OPTIM Specifications, continued

Trip Unit Type	Digitrip OPTIM 550	Digitrip OPTIM 1050
System Diagnostics		
Status LEDs	Yes	Yes
Cause of trip LEDs	Yes	Yes
Magnitude of trip information	Yes	Yes
Remote signal contact—ground alarm	Yes ①	Yes
Local auxiliary and bell alarm contact	Optional	Included
System Monitoring		
Digital display	Yes ②	Yes ②
Current	Yes	Yes
Power and energy	No	Yes
Power quality—harmonics	No	Yes
Power factor	No	Yes
Communications		
PowerNet	Yes ③	Yes
Testing		
Testing method	OPTIMizer, BIM, PowerNet	OPTIMizer, BIM, PowerNet

Legend

 $\begin{array}{ll} \text{BIM} = \text{Breaker Interface Module} \\ \text{(A)} = & \text{GF Alarm} \\ \text{I}_s = & \text{Sensor Rating} \\ \text{I}_n = & \text{Rating Plug} \\ \text{I}_r = & \text{Long Delay Pickup Setting} \\ \end{array}$

- ① Zone interlock kit.
- ② By OPTIMizer/BIM.
- 3 Eaton's PowerNet kit.

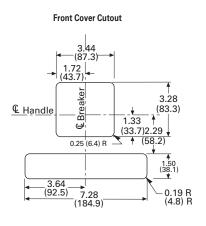
Dimensions and Weights

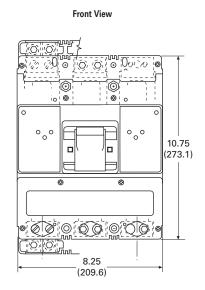
Dimensions in Inches (mm)

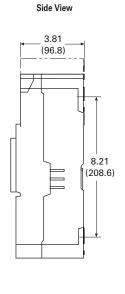
LD Frame

Number of Poles	Width	Height	Depth
2, 3	8.25 (209.6)	10.75 (273.1)	4.06 (103.1)
4	11.00 (279.4)	10.75 (273.1)	4.06 (103.1)

LD-Frame, Two- and Three-Pole







Approximate Shipping Weight, Lbs (kg)

LD Frame

Complete Breaker			Frame Only	Frame Only			Trip Unit		
Breaker Type	Two-Pole	Three-Pole	Four-Pole	Two-Pole	Three-Pole	Four-Pole	Two-Pole	Three-Pole	Four-Pole
LD, HLD, LDC	18 (8.2)	20 (9.1)	25 (11.3)	14 (6.4)	15 (6.8)	20 (9.1)	3 (1.4)	4 (1.8)	5 (2.3)
LDB	18 (8.2)	20 (9.1)	25 (11.3)	_	_	_	_	_	_